CLAIMS

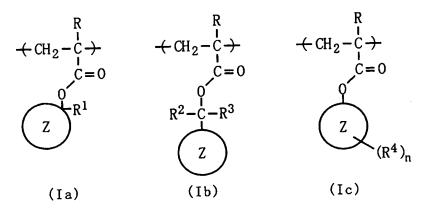
1. A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group, wherein the resin has a weight-average molecular weight of 3000 to 15000 and has a content of polymer fractions each having a molecular weight exceeding 40000 of 4 percent by weight or less of the total resin.

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2. The photoresist resin according to claim 1, wherein the constitutional repeating unit A is at least one selected from constitutional repeating units of following Formulae (Ia), (Ib) and (Ic):



wherein Ring Z is an alicyclic hydrocarbon ring having six to twenty carbon atoms which may be substituted; R is hydrogen atom or an alkyl group having one to six carbon atoms; R^1 , R^2

and R^3 may be the same as or different from one another and are each an alkyl group having one to six carbon atoms; R^4 s are substituents combined with Ring Z, may be the same as or different from each other and are each oxo group, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group, wherein at least one of nR^4 s is a -COOR^a group, wherein R^a is a tertiary hydrocarbon group which may be substituted, tetrahydrofuranyl group, tetrahydropyranyl group or oxepanyl group; and n is an integer of 1 to 3.

- 3. The photoresist resin according to claim 1 or 2, wherein the constitutional repeating unit B is at least one selected from constitutional repeating units of following Formulae (IIa),
- 15 (IIb), (IIc), (IId) and (IIe):

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$$\begin{array}{c} R \\ + CH_2 - C \\ \hline C = 0 \\ R^{30} \\ R^{29} \\ R^{28} \\ R^{25} \\ R^{25} \\ R^{26} \\ O \\ (IIe) \end{array}$$

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wherein R is hydrogen atom or an alkyl group having one to six carbon atoms; R^5 , R^6 and R^7 may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; V^1 , V^2 and V^3 may be the same as or different from one another and are each $-CH_2-$, -CO- or -COO-, wherein (i) at least one of V^1 , V^2 and V^3 is -CO- or -COO-, or (ii) at least one of R^5 , R^6 and R^7 is a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a

protective group, or a carboxyl group which may be protected by a protective group; R⁸, R⁹, R¹⁰, R¹¹ and R¹² may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} and R²¹ may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; and R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} and R^{30} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group.

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- A photoresist resin composition, as a solution comprising
 the photoresist resin of any one of claims 1 to 3 and a
 light-activatable acid generator in a solvent.
 - 5. A process for preparing a photoresist resin composition, comprising the step of dissolving the photoresist resin of any one of claims 1 to 3 in a solvent.